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<b>To:</b>	US Patent Office	<b>Sent:</b>	01/03/2005 5:00 PM
<b>Company:</b>	Mail Stop: Petition	<b>Pages:</b>	17 (including Cover Page)
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Please see the attached a Transmittal Form, Petition to Revive, Fee Transmittal, Credit Card Payment and Reply to Abandonment Notice regarding application number 10/688,700 for Walker Butler (DC1006US).

Thank you,

Don Carnegie

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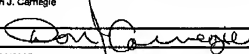
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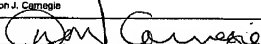
PTO/S&amp;T 02-641

Approved for use through 07/31/2005. OMB 0601-0031  
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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10688700	
	Filing Date	08/23/2003	
	First Named Inventor	Walker Butler	
	Art Unit		
	Examiner Name		
Total Number of Pages in This Submission	12	Attorney Docket Number	DC-1006US

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/Declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input checked="" type="checkbox"/> Response to Missing Parts/Incomplete Application <input checked="" type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input checked="" type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks Please discard the original pages 28-36 and replace with the attached pages 28-36.		
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT		
Firm or Individual name	Don J. Carnegie	
Signature		
Date	01/03/2005	

CERTIFICATE OF TRANSMISSION/MAILING		
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.		
Typed or printed name	Don J. Carnegie	
Signature		Date 01/03/2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the patent which is to file (and by the USPTO to process) an application. Confidentiality is governed by 38 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to be 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**FEE TRANSMITTAL**  
**for FY 2005**

Effective 10/01/2004. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT (\$)** 750**Complete if Known**

Application Number 10/668,700  
 Filing Date 09/23/2003  
 First Named Inventor Walker Butler  
 Examiner Name Z-Moguss  
 Art Unit  
 Attorney Docket No. DC1006US

**METHOD OF PAYMENT (check all that apply)**
☐ Check ☒ Credit card ☐ Money Order ☐ Other ☐ None
☐ Deposit Account:

Deposit Account Number 19-4415

Deposit Account Name St. George &amp; Carnegie

☐ The Director is authorized to: (check all that apply)☐ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity	Small Entity	Fee Code	Fee (\$)	Fee Description	Fee Paid
1001	790	2001	365	Utility filing fee	
1002	350	2002	175	Design filing fee	
1003	550	2003	275	Plant filing fee	
1004	790	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

**SUBTOTAL (1) (\$)****2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

Total Claims	Extra Claims	Fee from	Fee Paid
Independent	-30** =	X	
Multiple Dependent	-3** =	X	

**SUBTOTAL (2) (\$)**

\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity	Small Entity	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	820*	1804	820*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	430	2252	215	Extension for reply within second month	
1253	980	2253	490	Extension for reply within third month	
1254	1,530	2254	765	Extension for reply within fourth month	
1255	2,080	2255	1,040	Extension for reply within fifth month	
1401	340	2401	170	Notice of Appeal	
1402	340	2402	170	Filing a brief in support of an appeal	
1403	300	2403	150	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,370	2453	685	Petition to revive - unintentional	750
1501	1,370	2501	685	Utility/Reissue Fee (or Reissue)	
1502	400	2502	245	Design Issue fee	
1503	660	2503	330	Plant Issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.117(a)	
1808	160	1808	160	Submission of Information Disclosure Sheet	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1009	730	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	790	2810	395	For each additional invention to be examined (37 CFR 1.129(b))	
1801	790	2801	395	Request for Continued Examination (RCE)	
1802	800	1802	800	Request for extended examination of a design application	

Other fee (specify):

\*Reduced by Basic Filing Fee Paid

**SUBTOTAL (3) (\$)** 750**SUBMITTED BY**

Name (Print/Type) Don Carnegie

Registration No. (optional/leave blank) 39522

(Complete if applicable)

Telephone 949-854-8405

Signature

Date 01/03/05

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
10/668,700	09/23/2003	Walker Butler	DC1006US

Don J. Carnegie  
Suite 5A #540  
5405 Alton Parkway  
Irvine, CA 92604CONFIRMATION NO. 2193  
ABANDONMENT/TERMINATION  
LETTER  
\*OC000000014351507\*  
\*OC000000014351507\*

Date Mailed: 11/12/2004

## NOTICE OF ABANDONMENT UNDER 37 CFR 1.53 (f) OR (g)

The above-identified application is abandoned for failure to timely or properly reply to the Notice to File Missing Parts (Notice) mailed on 12/16/2003.

- No reply was received.

A petition to the Commissioner under 37 CFR 1.137 may be filed requesting that the application be revived.

Under 37 CFR 1.137(a), a petition requesting the application be revived on the grounds of **UNAVOIDABLE DELAY** must be filed promptly after the applicant becomes aware of the abandonment and such petition must be accompanied by: (1) an adequate showing of the cause of unavoidable delay; (2) the required reply to the above-identified Notice; (3) the petition fee set forth in 37 CFR 1.17(f); and (4) a terminal disclaimer if required by 37 CFR 1.137(d).

Under 37 CFR 1.137(b), a petition requesting the application be revived on the grounds of **UNINTENTIONAL DELAY** must be filed promptly after applicant becomes aware of the abandonment and such petition must be accompanied by: (1) a statement that the entire delay was unintentional; (2) the required reply to the above-identified Notice; (3) the petition fee set forth in 37 CFR 1.17(m); and (4) a terminal disclaimer if required by 37 CFR 1.137(d).

Any questions concerning petitions to revive should be directed to the "Office of Petitions" at (703) 305-9282. Petitions should be mailed to: Mail Stop Petitions, Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450.

*A copy of this notice **MUST** be returned with the reply.*

Z. Moquss  
Customer Service Center  
Initial Patent Examination Division (703) 308-1202

PART 1 - ATTORNEY/APPLICANT COPY



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APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
10/668,700	09/23/2003	Walker Butler	DC1006US

Don J. Carnegie  
Suite 5A #540  
5405 Alton Parkway  
Irvine, CA 92604

CONFIRMATION NO. 2193

## FORMALITIES LETTER



\*OC00000011505004\*

Date Mailed: 12/16/2003

## NOTICE TO FILE CORRECTED APPLICATION PAPERS

## Filing Date Granted

An application number and filing date have been accorded to this application. The application is informal since it does not comply with the regulations for the reason(s) indicated below. Applicant is given TWO MONTHS from the date of this Notice within which to correct the informalities indicated below. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

The required item(s) identified below must be timely submitted to avoid abandonment:

- Replacement claim(s) commencing on a separate sheet in compliance with 37 CFR 1.75(h) and 1.121 is required.

Replies should be mailed to: Mail Stop Missing Parts  
Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

*A copy of this notice **MUST** be returned with the reply.*

  
Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 1 - ATTORNEY/APPLICANT COPY

defined in the appended claims. Therefore, it is manifestly intended that this invention be limited only by the claims and equivalents thereof.

We claim:

1. A surveillance system, comprising:
  - a surveillance unit;
  - 5 at least one Identification-Friend or Foe (IFF) unit coupled to at least one object; and
  - a processing facility;
  - said surveillance unit transmits surveillance signals to all objects within a surveillance area, and upon receipt of reflections of said transmitted signals determines locations of said objects relative to the
  - 10 location of said surveillance unit and communicates said determined locations to said processing facility;
  - said at least one IFF unit coupled to at least one object responsive to said surveillance signals exceeding a predetermined power level for
  - 15 broadcasting messages containing Identification and location information of said object coupled to said IFF unit to said processing facility;
  - said processing facility compares said broadcast messages from said IFF units with said communications from said surveillance unit and performs computations including determination of all locations of all
  - 20 properly authorized objects within said surveillance area, identification of

objects not authorized to be in said surveillance area, and generation of appropriate notice.

2. A surveillance system as claimed in claim 1, wherein said IFF unit  
5 coupled to said object includes a GPS receiver for determining time and the location of said object.
3. A surveillance system as claimed in claim 1, wherein said surveillance  
unit is collocated with a GPS receiver for determining time and the  
10 location of said surveillance unit, and is capable of communicating said time and location of said surveillance unit to said processing facility.
4. A surveillance system as claimed in claim 1, wherein said processing  
facility compares said GPS determined location of said surveillance unit  
15 with said GPS determined locations of said objects coupled to said IFF units to determine the relative positions of said objects with respect to said surveillance unit, and correlates each said relative position of each said object coupled to said IFF unit with the corresponding said reflection of said transmitted signal.

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5. A surveillance system as claimed in claim 1, wherein said processing facility performs computations including categorization of all said reflections of said transmitted surveillance signals as: returns from fixed position objects known and approved to be in said surveillance area, objects coupled to said IFF units and approved to be in said surveillance area, and objects not approved to be in said surveillance area; for generating an alert when said objects not approved to be in said surveillance area are detected.
- 10 6. An Identification-Friend or Foe (IFF) unit, comprising:
- a radar signal detector;
  - a GPS receiver; and
  - a data communication transmitter;
- 15 said GPS receiver receives signals from GPS satellites and derives data including current time and IFF unit location;
- said radar signal detector responds to surveillance radar main beam and generates commands to transmit data;
- said data communication transmitter responsive to each said command to transmit data broadcasts a message containing identification
- 20 information, and GPS derived time and position of said IFF unit.

## 7. A surveillance system, comprising:

a surveillance unit;

at least one Identification-Friend or Foe (IFF) unit coupled to at least one object; and

5 a processing facility;

said surveillance unit transmits surveillance signals to all objects within a surveillance area, and upon receipt of reflections of said transmitted signals determines locations of said objects relative to the location of said surveillance unit and communicates said determined  
10 locations to said processing facility;

said at least one IFF unit coupled to at least one object broadcasts repeatedly at predetermined times messages containing identification and location information of said object coupled to said IFF unit to said processing facility;

15 said processing facility compares said broadcast messages from said IFF units with said communications from said surveillance unit and performs computations including determination of all locations of all properly authorized objects within said surveillance area, identification of objects not authorized to be in said surveillance area, and generation of  
20 appropriate notice.

8. A surveillance system as claimed in claim 7, wherein said IFF unit coupled to said object includes a GPS receiver for determining parameters including time and the location of said object.
- 5 9. A surveillance system as claimed in claim 7, wherein said surveillance unit is collocated with a GPS receiver for determining parameters including time and the location of said surveillance unit, and is capable of communicating said time and location of said surveillance unit to said processing facility.
- 10
10. A surveillance system as claimed in claim 7, wherein said processing facility compares said GPS determined location of said surveillance unit with said GPS determined locations of said objects coupled to said IFF units to determine the relative positions of said objects with respect to
- 15 said surveillance unit, and correlates each said relative position of each said object coupled to said IFF unit with the corresponding said reflection of said transmitted signal.
11. A surveillance system as claimed in claim 7, wherein said processing
- 20 facility performs computations including categorization of all said reflections of said transmitted surveillance signals as: returns from fixed

position objects known and approved to be in said surveillance area, objects coupled to said IFF units and approved to be in said surveillance area, and objects not approved to be in said surveillance area; for generating an alert when said objects not approved to be in said surveillance area are detected.

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12. An Identification-Friend or Foe (IFF) unit, comprising:

a GPS receiver;

a transmit controller; and

- 10 a data communication transmitter;

said GPS receiver receives signals from GPS satellites and derives data including current time and IFF unit location;

said transmit controller compares said current time with predetermined times of transmission stored in memory, and generates commands to transmit data;

15

said data communication transmitter responsive to each said command to transmit data broadcasts a message containing identification information, and GPS derived time and position of said IFF unit.

- 20 13. An IFF unit as claimed in Claim 12, where said data communication transmitter function is provided by a bi-directional communication device.

14. An Identification- Friend or Foe (IFF) unit, comprising:

a GPS receiver; and

a bi-directional communication device;

- 5           said GPS receiver receives signals from GPS satellites and derives data including current time and IFF unit location;

          said bi-directional communication device responds to a received command and broadcasts a message containing identification information, and GPS derived time and position of said IFF unit.

10

15. A method for identification interrogation, comprising the steps of:

a) transmitting at least one surveillance signal;

b) determining location of at least one object based on a reflection of said transmitted surveillance signal from said object;

- 15       c) broadcasting at least one message containing identification and position information from said at least one object; and

d) correlating said location information from said reflection signal with said broadcast information from said object to determine location of said object properly authorized to be within a surveillance area.

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## ABSTRACT

A surveillance system is provided for surveillance of objects within a secure area. A surveillance sensor transmits surveillance signals to all objects within the secure area, the reflections of which are received back by the surveillance sensor to determine the locations of objects, and communicates the determined locations to a processing facility. Objects authorized to be in the secure area are equipped with an Identification Friend or Foe (IFF) unit that includes a GPS receiver and a data communication transmitter. In response to predetermined conditions, the IFF units broadcast their position and identification to the processing facility for correlation with locations defined by the reflection signals. The reflection signals from other objects are compared with a list of the locations of objects, such as terrain features and man-made facilities, that are known to be in the secure area. If no broadcast information is received from an object and the location of that object determined by the reflection signal cannot be correlated with the known object list, then the object has no proper authorization to be within the secure area, and an alarm is generated.

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